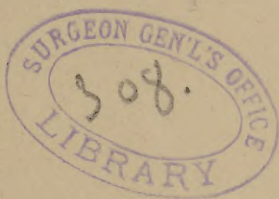


Rice, (C.C.)

What Cases of Nasal Catarrh
require Surgical Treatment.

BY
CLARENCE C. RICE, M. D.

REPRINTED FROM
The New York Medical Journal
for May 7, 1887.



*Reprinted from the New York Medical Journal
for May 7, 1887.*



WHAT CASES OF NASAL CATARRH REQUIRE SURGICAL TREATMENT?*

By CLARENCE C. RICE, M. D.

THIS subject has received as much attention from this association as any other, if not more, during the past three years, and I am aware that newer, fresher topics would be more entertaining. That there is no unanimity of opinion here in regard to the frequency with which surgical measures are required in the treatment of catarrhal inflammations of the nose I think we all know. The discussion on this subject by the members of this association one year ago will show that there were almost as many opinions as speakers. Dr. J. Solis-Cohen, who has had large experience in the treatment of nasal disease, concludes that "in keeping the parts clean and in caring carefully for the patient's general health" he is doing the maximum for the cure of nasal inflammations. Dr. Daly, of Pittsburgh, is quoted as saying that "when we become more throat surgeons and less throat doctors, we shall get better results in the treatment of our cases." A number of the gentlemen last year expressed it as their opinion that there had been, and there still was, a tendency to do too much cutting and burning and

* Read before the American Laryngological Association at its eighth annual congress.

boring and snoring, while others contended that in these very methods we had the most efficient therapeutical means in the treatment of catarrhal diseases of the upper air-passages. To me this diversity of opinion is not at all discouraging in endeavoring to arrive at the correct principles which should regulate the treatment of nasal catarrh. I believe that the members of this association are more agreed in their actual methods of treatment than the various opinions expressed by them would indicate.

In the treatment of nasal disease there is a middle ground between the local application of mild remedies on the one hand and radical surgical measures on the other, where we can safely stand. No surgical method is to be shunned completely because it has been employed too frequently, or because it has been at times improperly followed. I have seen disastrous results from the use of the galvano-cautery, and yet I am fully in accord with a statement made at our last meeting by our president, Dr. Harrison Allen. He said that he "believed that the galvano-cautery was the best single agent at our command to relieve nasal disease." One reason for the large increase in the use of surgical methods in our specialty is undoubtedly due to the more perfect diagnosis of diseases of the nasal chambers, which has been made possible by improved methods of investigation, for the instruments we have for the diagnosis of nasal disease are to-day most complete. (Such a thorough illumination of the upper respiratory passages can now be effected, by means of strong, well-directed lights, that disease in these parts is readily discovered.) The addition of the electric light (the electric laryngoscope and post-nasal electric lamp) and the wonderful drug, cocaine, as means of diagnosis, to the equipment of the rhinologist, leaves little to be desired. The use of cocaine has, in a measure, revolutionized nasal therapeutics, for, whereas before it was discovered an ex-

amination of the nostrils showed nothing but hypertrophied tissue over the turbinated bones, guarding the entrance to the nostrils and preventing further inspection, now this obstructing tissue can be pushed aside, and the entire nasal cavities are visible. The case now perhaps presents entirely new and unexpected features; exostoses of the septum, polypi, or hypertrophies of the soft structures are seen in the posterior half of the nasal chambers. Surgical measures are more frequently employed than formerly, too, because better methods of examination now more clearly disclose the *causes* of inflammation which can not be removed by the older methods of spraying and douching. This, after all, is the most difficult part of the physician's work, to locate and determine the precise character of the pathological condition. If we were all agreed as to the local predisposing and exciting causes of a catarrhal inflammation, we should also probably be agreed as to the best method for removing them. With the recently invented and convenient forms of the electric cautery, hot and cold snare, drills, forceps, and cutting instruments, there are few nasal hypertrophies or obstructions which can not be easily reached and removed. In fact, surgical measures in this department are so much more easily carried out than they were a few years since, perhaps the temptation is frequently great to cut and remove too much tissue from the nasal passages, in the endeavor to make straight channels of what were intended, and with great wisdom, to be curved, tortuous passages. There comes a time in any line of surgical practice when, after rapid progress in means of diagnosis and great improvement in instruments, it is well to stop for a moment and look back over the field. It is wise to compare the new methods of treatment with the old, and to determine whether they are, in every sense, superior to them. The old question, "Can catarrh be cured?" still comes to us, and I believe it can be

answered affirmatively with much greater assurance and certainty than it could have been five years ago. Every physician has patients who serve as guide-posts along the road which has been traveled, showing how much could be accomplished at that time to cure catarrhal diseases of the nose, and indicating, too, how far surgery has advanced in heroism, if not in skill.

The physician at one time was quite content to excise small portions of enlarged tonsils, but now one sees, not frequently to be sure, pharynges which have lost all semblance of tonsils, and with them the pillars of the pharynx have also disappeared; nostrils, too, with septa thinned, and turbinated bones ground off. This last is said not so much as a criticism of any existing wrong as a warning against too extreme surgical measures. Of all the diseases of the throat and nose, those requiring surgical interference are the least troublesome, both in determining the prognosis and in effecting a cure. They are the most satisfactory cases we meet with. It is much easier to remove a polypus than to cure a painful throat in which no cause of pain can be discovered. It is less difficult to apply the electric cauterity to hypertrophied nasal tissue than to check supersecretion in a case where but few pathological changes can be seen, and so, where there is no opportunity to correct such changes with knife or cauterity, the surgical treatment of catarrhal inflammations of the nose, if properly employed, is in no way more radical or more apt to produce disastrous results than the application of the various astringent, sedative, or stimulating drugs.

Almost any effect can be produced with the galvanocautery electrode, depending entirely upon the manner in which it is used. It can be applied to the mucous membrane so gently as to be hardly more than an astringent, the very superficial ulceration produced causing only slight

contraction of the tissues. Those who condemn this instrument should go far enough to specify what mode of using it they consider injurious. It might seem heroic treatment to apply a platinum wire at white heat to the sensitive congested nasal mucous membrane when in a condition of acute coryza, but it is much more rational treatment than to cover this same membrane with a solution of tannin or of nitrate of silver, a mode of procedure which has been generally employed.

Let us for a moment note the effects produced by these two different methods of treatment (and I refer to an article lately published by myself, "The Surgical Treatment of Colds in the Head"). In the first instance the actual cautery burns down the swollen tissues, leaving a small ulcerated surface. This affords relief in several ways: it opens the closed nostril so that the patient can breathe; it acts as an excellent counter-irritant, determining the inflammation from other and neighboring parts to this one locality, and so lessens greatly the area of inflammation. It does more than this; the character of the inflammation is changed from that of a coryza, which may be more or less peculiar, to that of a simple burn. In the other case when a supposed milder measure is employed, and some mild astringent solution is sprayed or brushed into the nasal cavities, it is possible that a little contraction of the tissues is effected for a short time, but this effect is very transient, and the inflamed mucous membrane quickly reacts, and is soon more congested and swollen than before the application of the drug, so that the mild astringent has proved to be an irritant. This uncertainty in the action of medicinal applications has at all times been a most discouraging feature in the treatment of chronic nasal catarrh. One after another the various classes of drugs have been employed, but results have been far from satisfactory or

uniform; the reaction of the astringent has proved most stimulating; the desired sedative has been most markedly irritating. How uncertain the action of remedies is when employed upon mucous surfaces in other portions of the body I do not know, but the nasal mucous membrane is a peculiar structure, which can not be acted upon by drugs with any degree of uniformity, and the reasons for this are evident. The nasal mucous membrane being constantly exposed to irritation of all kinds—foreign bodies in the air, rapid changes in the temperature of the atmosphere, etc.—the effect of drugs locally applied is greatly modified and frequently changed altogether by these external causes. If all extraneous influences could be excluded, if the nostrils could be closed to dirt, dust, and air, we could more exactly determine the action of medicines upon the nasal mucous membrane. The physiological action and the peculiar anatomy of the soft nasal tissues are factors which not only predispose them to catarrhal inflammations, but, what is more pertinent to this paper, they strongly compromise the benefit to be derived from all topical applications, rendering such applications ununiform and uncertain in their effects. They furnish, too, a strong argument for the adoption of surgical measures in the treatment of inflammations of the nasal mucous membrane. The cavernous tissue of the nasal cavities performs an important function, and it is well to take this into consideration in selecting the medicinal remedy or in planning the operation to be employed.

The value of having erectile tissue in the nose is appreciated when we remember that the nostrils warm air which is too cold, cool air which is too warm, moisten dry air, and strain out a large portion of the foreign particles which, without the nostrils, would enter the lungs. The hypertrophied masses of tissue over the anterior turbinated bones are sentinels which are almost automatic in their action, at

times puffing up and almost occluding the nostrils when air is unfit for respiration, and at other times retracting and becoming almost invisible when their aid is not needed. I speak of this well-known physiological action of the erectile structure of the nose only to emphasize the fact, which I believe may be easily overlooked—namely, that the tissues over the turbinated bones are not always hypertrophied (using that word in a pathological sense), even when they nearly occlude the nostrils, so that not every so-called “anterior hypertrophy” should be operated upon. The presence or absence of other symptoms of nasal catarrh should alone determine whether the tissues of the nose are normal or pathological. But, while the erection of the cavernous tissue of the nose serves a most valuable physiological purpose, it is unquestionably a most difficult structure to influence with astringent or sedative solutions. It repels all such remedies as it does foreign bodies in the air. All the drugs commonly used in nasal catarrh, without regard to their physiological action elsewhere, do little but irritate the nasal mucous membrane; and the astringent which is used in a subacute inflammation, instead of diminishing the trouble, oftentimes renders the process acute. These are a few of the disadvantages which have attended the use of medicines applied to the nasal mucous membrane. In a word, this method of treatment has been most discouraging, and it is not surprising that any surgical procedures which promise satisfactory, uniform, and permanent results are looked upon with favor, and are coming to be more generally used. The difficulty in former methods of treatment has been, apparently, not so much in the selection of proper drugs as in the correct appreciation of the condition of the mucous membrane to be treated. What is the stage or grade of inflammation? What amount of active process is going on? And it is not sufficient to determine whether

the inflammation is acute or chronic, for between these two conditions there are many minor stages, which it is necessary to appreciate in determining the proper plan of treatment to be followed. The physiological function and the peculiar anatomy of the nasal mucous membrane, and the extraordinary conditions under which it is placed, render a division of catarrhal inflammation of this membrane into stages, for the sake of intelligent therapeutics, well nigh impossible.

Dr. J. N. Mackenzie* has simplified matters in his classification of chronic nasal inflammations, and I believe that he correctly describes the successive pathological conditions that usually take place.

It is a matter of regret that the relation existing between the pathological appearances of catarrhal inflammations of the nose and its symptomatology can not be more precisely determined and stated. The physician rarely examines nostrils in which the nasal mucous membrane presents a normal appearance; so-called "hypertrophies" can be discovered in almost every nose; enlarged blood-vessels are hardly ever absent, even though the patient is not a catarrhal one.

It is manifest that not every case presenting pathological conditions requires either medical or surgical treatment. In addition to pathological appearances as a means of diagnosis, I wish to suggest that more stress be placed upon the symptoms of the patient as a safe guide in deciding whether the case requires surgical methods of relief. I would not advocate less careful and painstaking examinations of the changes which have taken place in the nasal tissues; but the *special complaint* which the patient brings

* J. N. Mackenzie, "Notes on the Classification, Diagnosis, and Treatment of Chronic Nasal Inflammation," "Medical News," April, 1885.

to the physician to relieve is, at least, something tangible for the physician to combat. It is good advice to the beginner in any specialty to make it his strong endeavor to control or alleviate the annoying symptoms which are distressing his patient. He must always keep this point in mind if he would gain the confidence of his client and score a success. The patient who breathes easily through his nostrils cares nothing for the removal of thickened tissue, if such an operation does not check at all the excessive secretion of mucus which he is constantly obliged to clear by violent exertion from the posterior nares. The majority of patients, though thoroughly ignorant of the *nature* of catarrhal disorders, have a very correct understanding of the *particular symptoms* which annoy them. What are the symptoms of nasal catarrh which should be relieved, and what pathological conditions producing these symptoms should be corrected by surgical measures?

In arriving at a diagnosis of catarrhal inflammations of the nasal tissues, we take into consideration the color of the mucous membrane, the degree of thickening of the tissues, the amount of secretion, and such subjective points as pain or disordered sensibility of any kind. In the matter of color of mucous membrane we have little of value to guide us in the treatment of nasal catarrh. The vivid redness of acute inflammation and the gray appearance of a chronic process described in text-books are here of slight diagnostic significance, for the coloring changes with every variation in the surrounding temperature. The common act of sneezing will change a pale mucous membrane to one of a bright-red color, and the nasal membrane which, judging from its color, we infer is acutely inflamed will, perhaps, in half an hour have lost all traces of congestion.

Very close to the question of color or congestion is the second point—the amount of swelling, the degree of thick-

ening or of hypertrophy; and here a great deal of information can be obtained as to the nature and extent of the catarrhal process and the advisability of surgical treatment. As has been said, there is scarcely an instance where so-called "anterior hypertrophies" can not be found; but are they "hypertrophies" in a pathological sense? Is the swelling of the soft tissues due at all to actual increase of connective tissue underlying the mucous membrane, or is it entirely produced by either active or passive congestion of the cavernous tissue? The function of these swellings must be constantly remembered in deciding how much of them should be removed. Nostrils are frequently examined in which the mucous membrane on both sides is found to be in contact with the septum, and it is difficult to see how any air can pass; but the patient assures the physician that he rarely has any difficulty in breathing through the nostrils, and this is explained by the fact that it does not seem necessary that the erectile tissue on both sides should be enlarged at the same time for physiological purposes, and, consequently, one nostril is usually open. The use of cocaine here will decide the question. Place a four-per-cent. solution on any of these swellings, and notice how much thickness of tissue remains after the cocaine has expelled the blood. If there is still hypertrophy enough to interfere with comfortable breathing, or if a portion of the obstruction is found to be due to an enlarged turbinated bone, the passages should be made larger by using the platinum electrode, or the small cautery loop, as recommended by Dr. Harrison Allen. It is manifestly a waste of time to endeavor to contract erectile tissue with astringent drugs. Such contraction must necessarily be very transient, and I believe that most medicines, applied to the nasal mucous membrane, are stimulating and irritating, and eventually cause permanent dilatation of the cavernous tissue. This is especially true

of medicine sprayed into the nostrils, as the air-current serves as an additional irritant. Permanent enlargement of the soft tissues does more than to obstruct the nostrils; it steadily increases the amount of inflammation by the irritation produced in its contact with the cartilaginous septum. The irritation produced by such friction soon shows itself in heightened color, and a secretion of thin glairy mucus between the two surfaces—a condition of “cold in the head.” The electric cautery should be used to destroy enough of the blood-vessels to prevent this contact between the soft tissue and the septum. By so doing, we remove one of the exciting causes of chronic hypertrophic catarrh. Great care, then, should be taken to destroy only sufficient tissue to afford comfortable breathing, and at the same time to leave the erectile structure of the nose in a condition still capable of performing its physiological function. It is because the cautery and knife have been employed too freely that conservative laryngologists have deprecated their use. Certain it is that the nasal passages should be long and tortuous, that the inspired air may come in contact with as large a surface of the moist, warm mucous membrane, and for as long a time, as possible. I dare say we have all seen cases where surgical measures have been abused in the attempt to cure nasal inflammations. I saw a young man recently who had had his nose thoroughly cauterized on both sides, and he complained that he was more annoyed by sensations of heat and pain through the nostrils when he breathed than he had been by nasal obstruction before the operation. The mucous membrane on both sides showed long, deep bands of cicatricial tissue. The cautery had accomplished too much; the nostrils were too open, and too little mucous membrane remained to warm the air or to prevent the entrance of foreign bodies. The cold air was the cause of the neuralgic pains, and the dirt

and dust, striking directly against the post-nasal pharynx, had produced a dry pharyngitis, just as that condition follows an atrophic nasal catarrh. I have seen two cases where acute inflammation of the middle ear followed extensive cauterization of the nasal tissues, not, as I believe, by extension of inflammation, for there was but slight inflammatory reaction, but by the sudden exposure of the Eustachian orifices to an increased current of cold air.

The width of the nostril should be considered in determining how much of the soft structures should be removed. The septum rarely occupies an exact median position, and it will not be necessary to use the cautery or snare so freely in the wide nostril as in the narrow one. In the ordinary cases of chronic nasal inflammation, three fourths of all that can be effected in the way of cure has been accomplished when the soft or bony structures of the nose have been so reduced in size by surgical measures that they can no longer prevent free nasal respiration.

115 EAST EIGHTEENTH STREET, NEW YORK.



REASONS WHY

Physicians should Subscribe

— FOR —

The New York Medical Journal,

EDITED BY FRANK P. FOSTER, M.D.,

Published by D. APPLETON & CO., 1, 3, & 5 Bond St.

1. **BECAUSE :** It is the *LEADING JOURNAL* of America, and contains more reading-matter than any other journal of its class.
2. **BECAUSE :** It is the exponent of the most advanced scientific medical thought.
3. **BECAUSE :** Its contributors are among the most learned medical men of this country.
4. **BECAUSE :** Its "Original Articles" are the results of scientific observation and research, and are of infinite practical value to the general practitioner.
5. **BECAUSE :** The "Reports on the Progress of Medicine," which are published from time to time, contain the most recent discoveries in the various departments of medicine, and are written by practitioners especially qualified for the purpose.
6. **BECAUSE :** The column devoted in each number to "Therapeutical Notes" contains a *résumé* of the practical application of the most recent therapeutic novelties.
7. **BECAUSE :** The Society Proceedings, of which each number contains one or more, are reports of the practical experience of prominent physicians who thus give to the profession the results of certain modes of treatment in given cases.
8. **BECAUSE :** The Editorial Columns are controlled only by the desire to promote the welfare, honor, and advancement of the science of medicine, as viewed from a standpoint looking to the best interests of the profession.
9. **BECAUSE :** Nothing is admitted to its columns that has not some bearing on medicine, or is not possessed of some practical value.
10. **BECAUSE :** It is published solely in the interests of medicine, and for the upholding of the elevated position occupied by the profession of America.

Subscription Price, \$5.00 per Annum. Volumes begin in January and July.

